REMEDIAL ACTION PLAN

1000 HOWE ROAD

MARTINEZ, CALIFORNIA

SUBMITTED

TO

TRUMARK COMPANIES

DANVILLE, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 6844.1.003.02

MARCH 8, 2006

Project No.
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March 8, 2006

Mr. K.C. Scheipe
Trumark Companies
4185 Blackhawk Plaza Circle, Suite 200
Danville, CA 94506

Subject: 1000 Howe Road
Martinez, California

REMEDIAL ACTION PLAN (RAP)

Dear Mr. Scheipe:

ENGEO Incorporated is pleased to present this Remedial Action Plan for the subject site (Site) located in Martinez, California (Figure 1). The attached report includes a summary of activities that have taken place at the Site, a description of the current soil and groundwater conditions, and our recommendations for mitigative activities.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Very truly yours,

ENGEO Incorporated

Kelly Krohn

Reviewed by:

Shawn Munger

kk/smc:RAP

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Letter of Transmittal

1.0 INTRODUCTION

The subject site (Site) is located at 1000 Howe Road in Martinez, California (Figure 1). The Site measures approximately nine acres in area and is identified with Assessor's Parcel Number (APN) 376-081-012. The Site is relatively flat, situated at an elevation of approximately 100 feet above mean sea level.

The western half of the Site is occupied by R.M. Harris Company (a general engineering contractor) and the eastern half, now vacant, had previously been used by Laidlaw Transit Services, Inc., a bus leasing company. Current improvements at the Site include an office/warehouse structure and an equipment yard.

R.M. Harris maintains an above-ground storage tank (AST) with secondary containment to fuel their equipment. Laidlaw previously used the Site for bus storage, dispatch and minor maintenance of vehicles. Additionally, Laidlaw maintained a closed loop car wash for their vehicles along with a clarifier to trap oil and grease during maintenance and washing operations. Two active pipelines and one former pipeline easement are located within the property boundaries. A single pipeline operated by Tenco Services, Inc. is used to carry jet fuel and is located along the eastern property boundary. A former Chevron pipeline trending east to west along the southern property boundary was used to carry crude oil. The pipeline was relocated to the south side of Howe Road in 1951. The relocated pipeline is now used to carry natural gas, crude oil, gasoline, diesel fuel or Jet A aviation fuel.

Several environmental studies have been conducted on the Site since 1991 (Figure 1). Results of the investigations have identified elevated levels of petroleum hydrocarbons in the soil and groundwater. Soil concentrations in the vicinity of the crude oil pipeline exhibit concentrations of petroleum hydrocarbons in excess of Environmental Screening Levels (ESLs) developed by the San Francisco Regional Water Quality Control Board (SFRWQCB) and published in 2003.

Trace amounts of several other constituents, including PAHs and VOCs, were detected on the Site at concentrations below Environmental Screening Levels (ESLs). These past studies are discussed in detail in Section 3.0. This report discusses alternatives for remediation of the impacted soil and gives provides specific information on the proposed remedial method.

2.0 BACKGROUND

2.1 Location and Legal Description

The Site is located at 1000 Howe Road in Martinez, California. The Site, an irregularly-shaped parcel, measures approximately nine acres in area and is identified with Assessor's Parcel Number (APN) 376-081-012. The majority of the ground surface at the site is relatively flat at approximately Elev. 100 feet. Along the eastern side there are existing cut slopes with a gradient of approximately 2:1 (horizontal:vertical). The western and most of the northern site perimeters consist of fill slopes with an elevation gradient of approximately 2:1 (horizontal:vertical). However, the northeastern slope is a cut slope, at approximately 1:1 (based on the "Record Boundary" by Ruggeri-Jensen-Azar & Associates, dated July 20, 2005). This slope was likely created when grading for the adjacent residential development took place. A single-story building exists on the property. Portions of the site surface area is covered by pavement. Vegetation includes trees and some low seasonal grasses scattered around the perimeter.

2.2 Site Geology and Groundwater

The project Site was developed to its current condition in the late 1970s by using soils from the eastern and southern parts and from other sources to fill the northern and western portions. Presently, the fill covers approximately two-thirds of the site, and it appears to be 20 to 25 feet in thickness. The natural topographic gradient slopes to the west to northwest. Geology at the Site has been mapped as Briones Sandstone at depth. Surficial Site soils consist primarily of silty sand and clay, which in turn overlies gray to light brown sandstone. Groundwater has been encountered at various depths, ranging between 6 to 25 feet below the ground surface. Shallower groundwater was typically encountered on the eastern portion of the Site and is believed to be indicative of a perched water table condition.

2.3 Current and Past Uses of the Property

The Site was developed in the 1970s at which time several structures were constructed. Original owners of the Site were a construction company who leased part of the property to several trucking companies, a firebrick producer, Amerigas, and Mayflower Transportation.

Currently, the western half of the Site is occupied by R.M. Harris Company (a general engineering contractor) and the eastern half, now vacant, had previously been used by Laidlaw Transit Services, Inc. Current improvements at the Site include an office/warehouse structure and an equipment yard. R.M. Harris maintains an above-ground storage tank (AST) with secondary containment to fuel their equipment; Laidlaw had maintained a closed loop car wash for their vehicles along with a clarifier to trap oil and grease during maintenance and washing operations. Two active pipelines and one former pipeline easement are located within the property boundaries. A single active pipeline operated by Tenco Services, Incorporated is used to carry jet fuel and is located along the eastern property boundary. A former pipeline that previously conveyed crude oil trended east to west along the southern property boundary. The pipeline was relocated to the south side of Howe Road in 1951. The relocated pipeline currently carries natural gas, crude oil, gasoline, diesel fuel or Jet A aviation fuel.

3.0 PREVIOUS ENVIRONMENTAL REPORTS

Evaluation of Petroleum Hydrocarbons, 1000 Howe Road, Martinez, California; Conducted by Harding Lawson Associates, January 1991.

During a geotechnical investigation performed at the Site, petroleum odors were observed during soil boring operations near the southeastern corner of the Site (Figure 1). Based on this observation, a test pit exploration program was subsequently performed at the Site. A total of five test pits were excavated; based on field observations, three soil samples were collected and submitted for laboratory analysis. The soil samples, collected from depths ranging between 2½ and 9 feet below the ground surface, exhibited total petroleum hydrocarbons as diesel (TPH-d) concentrations between 600 and 1,500 milligrams per kilogram (mg/kg). Based on a historical records review, HLA indicated that the likely impact source was pipeline formerly operated by Standard Oil and subsequently operated by Chevron.

Phase I Environmental Assessment, 1000 Howe Road, Martinez, California; Conducted by ACC Environmental Consultants, June 1992.

The ACC Environmental Consultants (ACC) report included the results of a review of the historical uses of the Site, a review of the local and regional geology and hydrology and their potential influences on the property; review of the title report; results of a site reconnaissance including a hazardous materials investigation; a radius study including a review of federal, state, and local agency lists; and conclusions and recommendations.

Several petroleum hydrocarbon stains were observed at the surface within a construction area in the northern portion of the Property. However, it was reported that the staining was not indicative of hydrocarbon impact that may have migrated downward through the soil at these locations. The former property owner indicated that the staining was likely associated with "miscellaneous dumpings" of waste oil, gasoline, and other automotive fluids. Two underground storage tanks (USTs) observed during the reconnaissance were reported to have passed integrity

testing in September 1991. Additionally, testing confirmed the presence of asbestos building materials (ABM) within roofing patching material and vinyl flooring within the building.

Based on the findings of the assessment, ACC recommended further investigation of hydrocarbon-impacted material at the southeast corner of the property.

Phase II Environmental Site Assessment, 1000 Howe Road, Martinez, California; Conducted by ACC Environmental Consultants, June 1993.

Following the recommendation provided in the 1992 Phase I ESA report, ACC performed a Phase II site investigation in August 1992. A total of seven borings were advanced in the southern portion of the Site to a maximum depth of 20 feet below the ground surface. A total of 19 soil samples and one grab water sample were collected and submitted to the analytical laboratory. The samples were analyzed for the presence of total petroleum hydrocarbons as diesel, kerosene, and "heavy boilers" (TPH-d, TPH-k, and TPH-b, respectively). Although the water sample did not exhibit detectable concentrations of target constituents, several soil samples exhibited elevated concentrations of the target constituents. One soil sample, B5S3 (collected from a depth of 15 feet below the ground surface), exhibited the following concentrations: 760 mg/kg TPH-d; 2900 mg/kg TPH-k; and 2800 mg/kg TPH-b. Analysis of the chromatographs corresponding to the analyses indicated the petroleum hydrocarbons were aged and fell within the diesel to crude oil range. ACC indicated the nearby pipeline(s) were the likely source of impact.

Subsurface Investigation, 1000 Howe Road, Martinez, California; Conducted by Golder Associates Inc., March 1994.

Golder Associates (Golder) conducted an investigation at the Site to confirm the presence of hydrocarbon impact within Site soils, to determine the extent of associated impact, and to help determine the source of the hydrocarbon impacts in the vicinity of the pipeline easements. A total of five soil borings were advanced to a maximum depth of 15 feet below the ground surface in the southeastern corner of the Site. A total of eight soil samples were collected during the

investigation and were submitted for laboratory analysis. The samples were analyzed for the presence of a number of petroleum hydrocarbon ranges as well as several petroleum hydrocarbon constituents.

Golder identified the presence of petroleum hydrocarbons (crude oil and gasoline range) within a boring at the southeast corner of the subject Site. Based on the spatial relationship of the boring to the nearby pipeline easements as well as the reported contents of the pipelines through their service lives, Golder reported that the Standard Oil/Chevron pipeline was the likely source of impact.

Soil and Groundwater Results, 1000 Howe Road, Martinez, California; Conducted by Geomatrix Consultants, March 1995.

Geomatrix Consultants (Geomatrix) conducted a site assessment of soil and groundwater impacts on behalf of Chevron. A total of four soil borings were advanced to a maximum depth of 45 feet below the ground surface. One of the boreholes was converted into a monitoring well. Soil samples were collected at the time of exploration and were submitted for laboratory analysis for the presence of petroleum hydrocarbons and related constituents. Following construction and development of the monitoring well, groundwater was sampled on two different occasions and submitted for laboratory analysis.

Several soil samples exhibited trace concentrations of ethylbenzene and xylene(s) well below regulatory action levels; however, significant concentrations of crude oil-range petroleum hydrocarbons were detected in several samples. These analytes, as well as several semi-volatile organic compounds (SVOCs) at low concentrations, were also detected in water samples collected from the monitoring well.

Based on the results of the investigation, Geomatrix concluded that crude oil was present at the Site within soil and fractured bedrock, groundwater was present at the Site in a perched,

discontinuous condition and despite the presence of target analytes within groundwater, the groundwater at the Site is not used for drinking water and has no other beneficial use.

Report of Tank Closure, 1000 Howe Road, Martinez, California; Conducted by Dietz Irrigation, November 1995.

Dietz Irrigation prepared a report of tank closure in November 1995 following the removal of two 10,000-gallon USTs (one diesel tank and one gasoline tank). The location of the former tank is shown on Figure 1. During the removal, no odors or staining was observed in the vicinity of the tanks. However, confirmation soil sampling indicated the presence of diesel and motor oil-range petroleum hydrocarbons in the vicinity of the diesel tank and fill end. Subsequently, a backhoe was used to excavate soil in the vicinity of the tank area to determine the extent of soil impact. Based on confirmation sampling, it was estimated that a maximum area of 40 feet by 40 feet had been impacted with petroleum hydrocarbons as diesel.

Screening Health Risk Assessment, 1000 Howe Road, Martinez, California; Conducted by Geomatrix Consultants, May 1996.

Geomatrix completed a screening health risk assessment on behalf of Chevron in 1996. The risk assessment was completed using exposure parameters associated with an anticipated commercial land use scenario. The assessment determined that on-site soil and groundwater impacts did not pose a significant health risk to future property users for the commercial land use scenario; Contra Costa County Health Department officials reportedly concurred with this finding. Geomatrix concluded that no further site investigation or remediation was warranted.

Remediation Plan, 1000 Howe Road, Martinez, California; Conducted by The San Joaquin Company, September 1996.

The San Joaquin Company (SJC) prepared a remedial work plan to address diesel impacted soil in the vicinity of the former underground storage tanks. The work plan outlined an excavation program and presented two remedial options: off-site disposal or on-site bioremedial treatment. The remedial work was reportedly performed in October 1996; approximately 20 cubic yards of

soil were reportedly excavated from the suspected area of impact. None of the confirmation samples from the walls of the resulting excavation exhibited concentrations in excess of 30 mg/kg TPH-d. On April 14, 1997, Contra Costa County Health Services Department issued a "no further action" regarding the former UST area. This finding was subject to change if the any revision to a commercial land use of the property occurred.

Phase I Environmental Site Assessment (Draft), 1000 Howe Road, Martinez, California; Conducted by Avalon Environmental Consultants, Inc., March 2005.

Avalon Environmental Consultants (Avalon) performed a Phase I ESA for the Site in March 2005. Avalon performed a review of previous environmental reports pertaining to the Site, a review of historical records, a search of databases maintained by federal, state, and local agencies pertaining to the Site and its vicinity, a review of local agency records, and a site reconnaissance. Based on the findings of the assessment, Avalon determined that the clarifier in the northeastern portion of the Site, given the belowground setting, might have potentially impacted subsurface soil and/or groundwater. Additionally, Avalon indicated that it was unlikely for Contra Costa County Health Services Department (CCCHSD) to recommend further investigation and/or remediation in the vicinity of the former USTs or in the vicinity of the reported impacts near the petroleum pipeline easements if the Site use remained light-industrial. The Site was granted a tank closure letter in April 1997. Avalon recommended that the landowner seek indemnity from Chevron for the soil impacts resulting from the attributed petroleum pipeline release. Avalon further recommended an asbestos survey if structures were to be renovated or demolished, additional soil and groundwater testing if a change in land use was anticipated, and a Phase II Subsurface Site Assessment in the vicinity of the clarifier.

Preliminary Report of April and May 2005 Environmental Sampling, 1000 Howe Road, Martinez, California; Conducted by Russell Resources, April 2005.

Russell Resources (Russell) performed a soil, groundwater, and soil gas sampling program at the Site during April and May 2005. Soil gas, groundwater, and surface soil samples were collected across the parcel, with special attention to the location of the former underground storage tanks,

the clarifier, and the crude oil leak attributed to the Chevron pipeline. A groundwater sample was collected from the existing well located at the southeast portion of the property.

The analysis of the groundwater sample collected from the existing well indicated the presence of elevated hydrocarbon concentrations. However, the concentration was appreciably lower than the sample tested in 1994, suggesting the impacts were undergoing natural attenuation. A water sample collected from the vicinity of the clarifier also revealed the presence of elevated petroleum hydrocarbon concentrations, but a soil sample collected from the same location did not exhibit any detectable concentrations of target analytes.

Russell opined that the most significant finding of the study was the detected soil and groundwater impact in the northeast corner of the property. Weathered hydrocarbons in jet fuel and diesel fuel range were detected in soil and groundwater samples. However, given the absence of a deicing chemical (ethylene glycol) normally associated with jet fuel, it was inferred that the impact is likely diesel fuel. Russell further inferred that a possible impact source was the adjacent Beneto property (990 Howe Road), located topographically upgradient from the Site. A leak was discovered at that property in 1990, but the case was deemed as a "soil only" impact, and site closure was granted in 1997. However, Russell opined that it was possible that groundwater had been impacted and not detected during site characterization and remediation activities.

Soil gas samples were collected from a series of sampling points spread across the Site. A total of 18 different compounds were detected during soil gas sampling including benzene, toluene, ethylbenzene, and xylenes (BTEX); however, the concentrations of the analytes were minimal. Several of the detected analytes have regulatory screening limit concentrations; in all cases where a limit has been established, the detected concentrations of the corresponding analyte were well below the respective threshold concentration.

Limited Phase II Subsurface Investigation, Bus Parking Area, Laidlaw Vehicle Maintenance Facility, 1000 Howe Road, Martinez, California; Conducted by Summit Environmental Systems, July 2005.

Summit Environmental Systems (Summit) conducted limited soil sampling of the former Laidlaw Transit bus maintenance facility to determine the likelihood of subsurface contamination associated with diesel fueling operations. Samples were taken at a depth of four feet below ground surface and indicated the presence of diesel-range hydrocarbons at one of ten locations sampled. Additionally, heavy oil hydrocarbons were detected at a single boring and Summit opined that the contamination was related to the oil pipelines on and adjacent to the Site. Delineation of any contamination was not explored and no recommendations relating to contamination were made.

Impacted Soil Cleanup/Confirmation Sampling, Bus Parking Area, Laidlaw Vehicle Maintenance Facility, 1000 Howe Road, Martinez, California; Conducted by Summit Environmental Systems, October 2005.

Summit Environmental Systems (Summit) conducted excavation operations within the former Laidlaw bus parking area in the northern portion of the Site to remove an area of diesel hydrocarbon impacted soil and a smaller area impacted by oil range hydrocarbons. An area 18 feet by 30 feet was excavated to a depth approximately 8 feet below ground surface to remove the diesel impacted soil. Confirmation samples taken from the sidewalls and bottom of the pit indicated that the significantly impacted soil had been adequately removed.

For the smaller area impacted by oil range hydrocarbons, a pit 5 feet by 5 feet and approximately 5 feet in depth was excavated. A confirmation sample was obtained from the bottom of the pit. Laboratory results indicated that petroleum hydrocarbon concentrations for the confirmation sample were below detection levels.

Upon completion of excavation operations, a total of 279.25 tons of impacted soil were off hauled. Clean aggregate base was imported and used to fill the excavation pits.

Site Characterization Report, 1000 Howe Road, Martinez, California; Conducted by ENGEO Incorporated, January 2006.

ENGEO Incorporated (ENGEO) performed additional sampling of soil, groundwater and soil gas to further evaluate environmental conditions on the Site. Samples were collected at target areas including the Chevron pipeline, the Laidlaw Area, the former UST site, around the general perimeter, and from the pre-existing groundwater monitoring well.

Soil samples indicated the presence of TPH as diesel, toluene, naphthalene and PAHs. None of the concentrations reported were above environmental screening levels (ESLs) for residential land us as defined by the SFRWQCB.

Nine groundwater samples were collected from borings and one groundwater sample was collected from the pre-existing well. Hydrocarbon concentrations were found in several of the groundwater samples including the sample taken from the pre-existing monitoring well. Additionally, one sample had an elevated concentration of arsenic.

Screening soil gas samples were taken at seven locations and indicated the presence of TPH as gasoline, benzene, toluene and xylenes. A "syringe" method and mobile laboratory was used for the screening soil gas study. Five of the soil gas samples had levels of benzene that exceed the residential Environmental Screening Levels (ESLs). ENGEO opined that the elevated levels were likely due to field and laboratory methodology and that the results overestimate the actual soil gas flux.

Based on review of available historical data and the results from the sampling, ENGEO anticipated that some remediation would be necessary for future residential development of the Site.

Supplemental Site Characterization Report, 1000 Howe Road, Martinez, California; Conducted by ENGEO Incorporated, February 2006.

On January 25, 2006, a meeting was held with the RWQCB, Trumark Companies, ENGEO, and, on behalf of Chevron, Science Applications International Corporation (SAIC) to discuss the environmental status of the Site. Upon assessment of data generated from previous investigations to-date, Mr. Martin Musonge and Mr. Chuck Headlee with the RWQCB requested additional soil, groundwater and soil gas sampling in specific locations across the Site.

In February 2006, ENGEO sampled soil, soil gas, and groundwater of the subject property. Review of the laboratory analyses found fourteen soil samples exceeded the ESL for arsenic and seven samples exceeded the ESL for cobalt. Based on previous and recent investigations, metals concentrations conform to apparent background levels for the Site. Total Petroleum Hydrocarbons (TPH) as gasoline was not reported above laboratory detection limits, TPH as diesel was reported above laboratory detection limits, but below residential ESLs, as was TPH as motor oil. Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) concentrations were not reported above laboratory detection limits.

Two groundwater samples were collected and TPH as gas, diesel and motor oil were not reported above laboratory detection limits. Tetrachloroethene concentrations were reported in one sample at 0.69 ppb, well below the residential ESL.

Eight soil gas samples were collected using approved protocols and procedures consistent with "Advisory - Active Soil Gas Investigations dated January 13, 2003" (Los Angeles Regional Water Quality Control Board and DTSC). Soil gas samples were analyzed by Air Toxics, LTD using method TO-15. Volatile Organic Compounds (VOCs) were detected in each of the eight soil gas samples collected. However, the concentrations detected, including those for benzene, were below the appropriate ESLs.

Health Risk Assessment, 1000 Howe Road, Martinez, California; Conducted by ENGEO Incorporated, March 2006.

ENGEO conducted a health risk assessment using exposure parameters associated with the proposed residential land use scenario. Based on information from previous investigations, it was concluded that isolated areas of soil and/or groundwater impact exist, likely associated with former and present pipelines that traverse the Site. In some instances, the maximum target analyte concentrations exceed respective ESLs. Arsenic and cobalt concentrations were reported above the applicable residential risk criteria. It was determined that these slightly elevated concentrations are likely due to ambient conditions. Additionally, it was concluded that elevated levels of petroleum hydrocarbons exist within the Site at levels that exceed ESLs. Based on sample locations, it was concluded that these localized areas of contamination are generally confined to the area near the pipelines.

The Health Risk Assessment determined that removal of impacted soils exhibiting elevated petroleum hydrocarbon concentrations to a depth of 5 feet within residential lot areas would sufficiently reduce the risk to the proposed development. The proposed residential units have limited yard areas, effectively eliminating the possibility that residents will perform deep excavations for purposes such as swimming pools. Therefore, 5 feet is considered greater than any anticipated end-user excavations associated with landscaping or other improvements. ENGEO also determined that based on groundwater data, there has not been significant impact to the groundwater on Site that would inhibit the proposed development of the subject property.

4.0 CHEMICALS OF CONCERN

Since 1991, several phases of environmental characterization have taken place at the Site; these studies are summarized in Section 3.0 above. Based on a review and compilation of data described in the investigations and the results of the Health Risk Assessment, the primary chemicals of concern (COCs) on the Site include total petroleum hydrocarbons as residual fuels (TPH-residual fuels), TPH -middle distillates, and TPH-gasoline. The following sections present a brief summary of the impacts to soil, groundwater, and soil gas.

4.1 Soil

Soil samples have been collected at various locations and depths throughout the Site (Figure 1). The COCs detected for the Site soils include petroleum hydrocarbons, several volatile organic compounds (VOCs), and polynuclear aromatics (PNAs). VOCs and PNAs were detected at maximum concentration significantly below their respective ESL. However, TPH-residual fuels, TPH-middle distillates, and TPH-gasoline all have 95 percent upper confidence levels (UCL) above the published ESL values. Based on analytical results, one area of significant petroleum hydrocarbon impact to soil has been identified.

The localized area of petroleum hydrocarbon impact is north of the former Chevron pipeline near the southeastern corner of the Site (Figure 1). In addition, a single sample taken from the cut slope in the northeastern portion of the Site, indicated the presence of elevated levels of petroleum hydrocarbon impact. This sample is locate outside of the area of proposed residential development and is not addressed as part of this RAP.

4.2 Groundwater

The chemicals detected at in the groundwater at the Site include petroleum hydrocarbons, volatile organic compounds (VOCs), and polynuclear aromatics (PNAs). The maximum

concentrations for VOCs and PNAs were significantly below the published ESLs. There was one instance where the concentration of TPH-middle distillates detected in the groundwater was above the published ESL. However, calculation of the 95 percent UCL concentration yielded a value below the ESL. Therefore, no chemicals if concern noted in groundwater were at levels of environmental concern.

4.3 Soil Gas

Results from the soil gas survey conducted by Russell indicate the presence of low levels of VOCs in the soil gas. Based on these results, ENGEO conducted a soil gas screening level study in December 2005 utilizing a mobile lab and the syringe method. This study indicated benzene concentrations exceeding its respective ESL. Subsequently, a supplemental study was conducted by ENGEO in which soil gas samples were collected using approved protocols and procedures consistent with "Advisory - Active Soil Gas Investigations dated January 13, 2003" (Los Angeles Regional Water Quality Control Board and DTSC). Laboratory analysis using method TO-15 was performed by Air Toxics, Ltd. The laboratory results indicate that no COCs detected in the soil gas exceed the published ESLs.

5.0 PROPOSED IMPROVEMENT PLANS

The proposed improvements to the Site include the development of up to 70 single-family detached residential homes (Figure 3). It is anticipated that the proposed structures will consist of single- and multiple-story detached residential units of wood-frame construction; therefore, the building loads are expected to be relatively light to moderate.

At this time, the foundation system is anticipated to consist of concrete mats, either conventionally reinforced or post-tensioned. Grading is not expected to alter grades significantly; however, to address concerns related to the existing fill, substantial corrective grading may be needed.

6.0 REMEDIAL ALTERNATIVES EVALUATION

The objectives of remedial action at the Site include protecting human health and the environment. Based on the results of the health risk assessment, the specific objectives for the Site include protection of human health and the environment from exposure to contaminated soil, and protect groundwater from further impact of contaminants. Based on these goals, the following remedial alternatives have been proposed.

6.1 Alternative One – No Remedial Action with Deed Restriction

This alternative entails no remedial action at the Site and inclusion of deed restriction for the area of noted petroleum hydrocarbon impact north of the pipeline easement. Land use within this are would likely be limited to parking or possible greenbelt area. Residential use or excavations would be restricted.

6.2 Alternative Two – Enhanced *In Situ* Bioremediation

Enhanced *in situ* bioremediation involves the stimulating the activity of naturally occurring microbes by circulating water-based solutions through contaminated soils to enhance *in situ* biological degradation of organic contaminants or immobilization of inorganic contaminants. Nutrients, oxygen, or other amendments may be used to enhance bioremediation and contaminant desorption from subsurface materials. Amendments can be added through in-place mixing, injection, or surface infiltration.

6.3 Alternative Three – *Ex Situ* Bioremediation

Ex situ bioremediation involves the excavation of the contaminated soils and then the addition of microorganisms to degrade organic contaminants in the excavated soil. *Ex situ* bioremediation includes slurry phase bioremediation and solid-phase bioremediation. The soils are first mixed

with water to form a slurry and then placed in a cell or building and tilled with added water and nutrients.

6.4 Alternative Four – Soil Excavation

Excavation would involve removing the contaminated soil and transporting the soil to a waste management facility. Given the available subsurface data, the excavated soil would likely be disposed at a Class III waste management facility. Based on the findings of the ENGEO Heath Risk Assessment, five feet of soil excavation would be proposed across the area of the four proposed residential lots in the southern Site area (Figure 3). Confirmation samples would be recovered from the sidewalls and bottom of the excavation pit to be used to determine the effectiveness of the excavation. If confirmation samples indicated the presence of COCs, then further excavation could be conducted. Vapor and dust emissions could be controlled during the excavation by covering stockpiles and spraying exposed soil with water. Upon completion of the excavation pit, clean engineered fill would be used to backfill.

7.0 SELECTION OF PREFERRED REMEDIAL ALTERNATIVE

Alternative One is not recommended, as it would not meet the goals of protecting human health and the environment. Additionally, deed restrictions limit the optimal use of this area of the property and will decrease the property value. As such, Alternative One is not recommended.

Alternative Two would require treatability or feasibility tests to determine whether enhanced bioremediation is feasible at the Site, and to define the remediation period and parameters. Remediation times are often years, depending mainly on the degradation rates of specific contaminants, site characteristics, and climate. Less than one year may be required to clean up some contaminants, but higher molecular weight compounds take longer to degrade. Additionally, there is a risk of increasing contaminant mobility and leaching of contaminants into groundwater. Based solely on the projected development time period, adequate remedial time may not be available. Additional monitoring would likely be necessary and deed restrictions would be necessary, especially if remedial goals have not been achieved prior to development. Alternative Two is not recommended based on the time frame for adequate remediation and possible deed restrictions.

Alternative Three would again require treatability or feasibility tests to determine the biodegradability of contaminant and the appropriate loading rates. Additionally, laboratory or field tests would be required to determine potential toxic degradation byproducts, potential degradation rate, and lower concentration limits. Area on the Site would be required to house the necessary equipment for remediation, possibly hindering construction activities that may be ongoing at the Site. *Ex Situ* treatment of contaminated soil would not take as long as *in situ* treatment, but would still require adequate time to effectively reduce the COCs to levels that would meet the remedial goals of the Site. Alternative Three is not recommended, as it requires an unknown amount of time to effectively remediate the soil. This could greatly impede the construction process on Site.

Of the proposed remedial alternatives, Alternative Four appears to be the best overall approach to achieving the remedial goals at the Site. Based on the small localized area of impact, excavation and subsequent off hauling of the contaminated soil would be time efficient and would unlikely hinder construction activities as the Site. Some grading will likely be necessary prior to building activities. Additionally, it would be possible to determine the extents of contamination and remove impacted soil most effectively, and thus relieve any requirements of deed restrictions or potential implementation a vapor intrusion barrier on Site. Based on these considerations, Alternative Four is selected as the preferred remedial alternative for the Site.

8.0 PROPOSED REMEDIAL WORK

Based on the size of the localized area of contamination, the time frame for adequate reduction of contaminant levels, and possible deed restrictions requirements, excavation and off haul of contaminated soil is the best remedial alternative for the Site. Impacted soils exhibiting elevated petroleum hydrocarbon concentrations within residential lot areas will be excavated to a depth of 5 feet and replaced with engineered fill (Figures 2 and 3). The proposed residential units have limited yard areas, effectively eliminating the possibility that residents will perform deep excavations for purposes such as swimming pools. Therefore, 5 feet is considered greater than any anticipated end-user excavations associated with landscaping or other improvements. The approximate volume of impacted soil to be removed is 2,000 cubic yards. Confirmation samples will be recovered from the sidewalls and any location where the concentration exceeds the appropriate ESL will be excavated to a maximum of 3 feet laterally beyond the lot boundary. The impacted soil will then be removed from the Site and disposed of at an appropriate waste management facility.

By excavating contaminated soil, a source of possible groundwater impact is partially removed. Additionally, removal of contaminated soils will effectively reduce the potential for increased contamination of the soil gas and possibly indoor air.

Full-time observation during excavation work will be provided to identify and segregate any TPH-impacted soil encountered. An Organic Vapor Meter (OVM) will be used to screen soils for petroleum hydrocarbons. Material that appears unaffected will be stockpiled separately for reuse as engineered fill, pending confirmation analyses. Any petroleum-impacted soil encountered will be stockpiled on plastic and covered pending landfill disposal profiling.

A site-specific health and safety plan will be developed prior to work activities. An isolation zone will be maintained around the perimeter of the staging area to prevent disturbance of the

soil and to limit worker contact. Additionally, an environmental technician will monitor work areas with the OVM. If significant organic vapors are noted, mitigation measures, including moisture conditioning and relocation of work crews upwind of the source areas, will be implemented.

Removal of the petroleum-impacted soil will be performed in generalized sequence outlined as follows:

- Non-impacted construction spoils will be stockpiled onsite for future use.
- Impacted soil generated from construction will be stockpiled on no less than 10 mil plastic and covered with plastic at the end of each day.
- Soil samples from the stockpile will be analyzed for total petroleum hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and CAM 17 Metals.
- Confirmation samples will be recovered from the base and sidewalls of the excavation to verify the effectiveness of removal activities. Samples will be recovered on a 1 per 20 lineal foot or 1 per 400 square foot basis.
- Confirmation samples will be analyzed for total petroleum hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Polynuclear Aromatic Hydrocarbons (PNAs).

Upon completion of the proposed development, a final Soil Mitigation Report will be prepared documenting field activities and final disposition of any TPH-impacted soil.

9.0 CONCLUSIONS

Since 1991, several phases of environmental characterization have taken place at the Site. Based on a review and compilation of data described in the investigations and the results of the Health Risk Assessment, the primary chemicals of concern (COCs) on the Site include total petroleum hydrocarbons as residual fuels (TPH-residual fuels), TPH -middle distillates, and TPH-gasoline. A single area of impact has been identified in the southeastern corner of the Site, just north of the former Chevron pipeline.

The objectives of remedial action at the Site include protecting human health and the environment. Specific objectives have been developed based on the results of the Health Risk Assessment. The specific objectives for the Site include protection of human health and the environment from exposure to contaminated soil, and protect groundwater from further impact of contaminants. Four alternatives for remediation of the petroleum hydrocarbon impacted soil were examined.

Results from the environmental studies indicated impacted soil occurs in a localized area. Based on the necessary duration of remediation, area of impact, hindrance of construction activities and possible deed restrictions for specific lots associated with each of the alternatives, excavation and subsequent off haul of contaminated soil was chosen as the best remedial alternative. This alternative would allow for complete delineation and removal of impacted soil and would not require deed restrictions to be placed on the affected lots. An estimated 2,000 cubic yards of petroleum-impacted soil will be excavated from the Site. By removing contaminated soil, the source for possible groundwater and soil gas contamination would also be reduced,.

SELECTED REFERENCES

ACC Environmental Consultants, Phase I Environmental Assessment, 1000 Howe Road, Martinez, California, June 1992.

ACC Environmental Consultants, Phase II Environmental Site Assessment, 1000 Howe Road, Martinez, California, June 1993.

Avalon Environmental Consultants, Inc., Phase I Environmental Site Assessment (Draft), 1000 Howe Road, Martinez, California, March 2005.

Dietz Irrigation, Report of Tank Closure, 1000 Howe Road, Martinez, California, November 1995.

ENGEO Inc., Health Risk Assessment, 1000 Howe Road, Martinez, California, March 2006.

ENGEO Inc., Site Characterization Report, 1000 Howe Road, Martinez, California, January 2006.

ENGEO Inc., Supplemental Site Characterization Report, 1000 Howe Road, Martinez, California, February 2006.

Geomatrix Consultants, Screening Health Risk Assessment, 1000 Howe Road, Martinez, California, May 1996.

Geomatrix Consultants, Soil and Groundwater Results, 1000 Howe Road, Martinez, California, March 1995.

Golder Associated Inc., Subsurface Investigation, 1000 Howe Road, Martinez, California, March 1994.

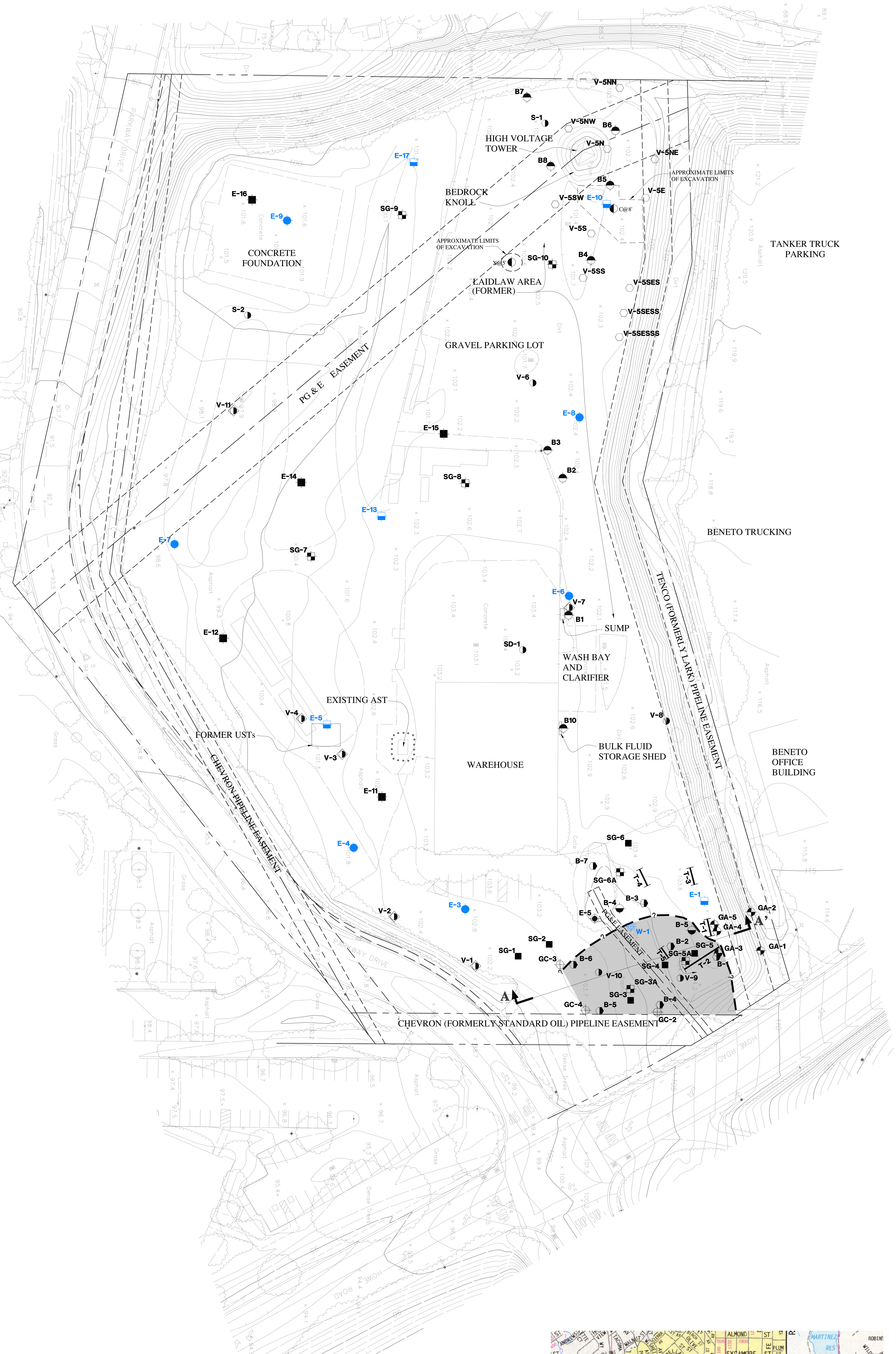
Harding Lawson Associates, Evaluation of Petroleum Hydrocarbons, 1000 Howe Road, Martinez, California, January 1991.

Russell Resources, Preliminary Report of April and May 2005 Environmental Sampling, 1000 Howe Road, Martinez, California, April 2005.

The San Joaquin Company, Remediation Plan, 1000 Howe Road, Martinez, California, September 1996.

LIST OF FIGURES

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

V-5SESS	APPROXIMATE LOCATION OF SHALLOW SOIL BORING (RUSSELL, 2005)
	APPROXIMATE LOCATION OF SOIL GAS SAMPLE (RUSSELL, 2005)
	APPROXIMATE LOCATION OF BORING (RUSSELL, 2005)
B10	APPROXIMATE LOCATION OF BORING (SUMMIT, JULY 2005)
C@8'	APPROXIMATE LOCATION OF BORING (SUMMIT, OCTOBER 2005)
GC-4	APPROXIMATE LOCATION OF BORING (GEOMATRIX, 1994)
GA-5	APPROXIMATE LOCATION OF BORING (GOLDER, 1993)
B-7	APPROXIMATE LOCATION OF BORING (ACC, 1992)
B-5	APPROXIMATE LOCATION OF BORING (HLA, 1990)
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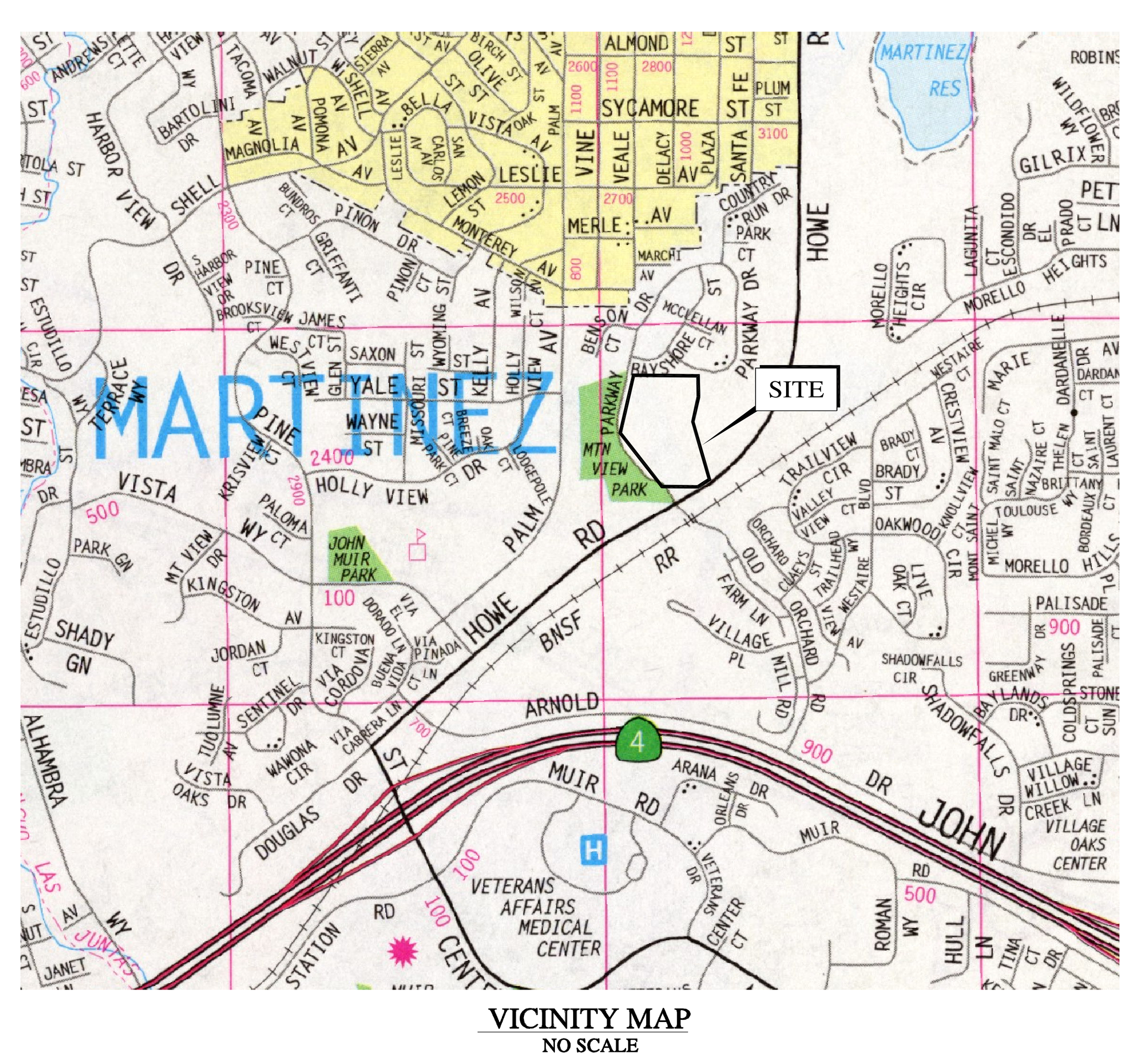
T-5	APPROXIMATE LOCATION OF TEST PIT (HLA, 1990)
W-1	APPROXIMATE LOCATION OF WELL (GEOMATRIX, 1994 / ENGEO 2005)
	APPROXIMATE AERIAL EXTENT OF TPH IN SOIL

N

0 FEET 40
0 METERS 20



VICINITY MAP
NO SCALE

BASE MAP SOURCE: RJA

ENGEO INCORPORATED — EXCELLENT SERVICE SINCE 1971

ENVIRONMENTAL SAMPLING PLAN
1000 HOWE ROAD
MARTINEZ, CALIFORNIA

PROJECT NO.: 6844.1.003.02	FIGURE NO. 1
DATE: MARCH 2006	
DRAWN BY: PC	CHECKED BY: SM

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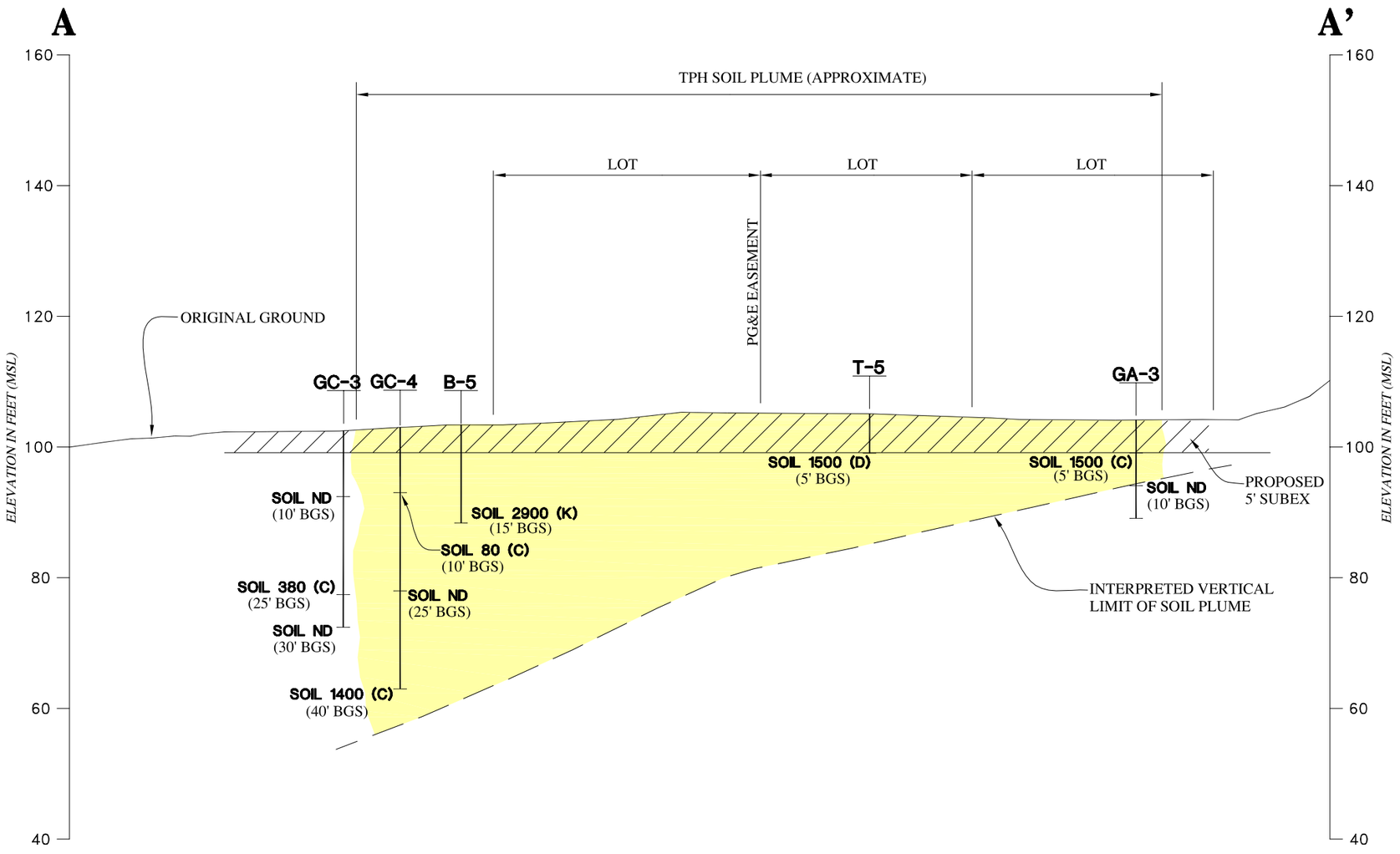

EXPLANATION

GC-3 APPROXIMATE LOCATION OF BORING (GEOMATRIX, 1994)

GA-3 APPROXIMATE LOCATION OF BORING (GOLDER,1993)

B-3 APPROXIMATE LOCATION OF BORING (ACC, 1992)

T-5 APPROXIMATE LOCATION OF BORING (HLA, 1990)

SOIL 1800 (K) APPROXIMATE SOIL SAMPLE LOCATION WITH MAXIMUM KEROSENE CONCENTRATION IN PPM

SOIL 1500 (D) APPROXIMATE SOIL SAMPLE LOCATION WITH MAXIMUM DIESEL CONCENTRATION IN PPM

SOIL 1800 (C) APPROXIMATE SOIL SAMPLE LOCATION WITH MAXIMUM CRUDE OIL CONCENTRATION IN PPM

1"=20'

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

CROSS SECTION A-A'
1000 HOWE ROAD
MARTINEZ, CALIFORNIA

PROJECT NO.: **6844.1.003.02**
DATE: **MARCH 2006**
DRAWN BY: SRP
CHECKED BY:
FIGURE NO. **2**

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ORIGINAL FIGURE PRINTED IN COLOR

EXPLANATION

APPROXIMATE AERIAL EXTENT OF TPH IN SOIL

N

0 FEET 40
0 METERS 20

BASE MAP SOURCE: RJA

ENGEO INCORPORATED
EXCELLENT SERVICE SINCE 1971

LOT PLAN
1000 HOWE ROAD
MARTINEZ, CALIFORNIA

PROJECT NO.: 6844.1.003.02		FIGURE NO. 3
DATE: MARCH 2006		
DRAWN BY: PC	CHECKED BY: SM	

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TABLE I. SURFACE SOIL DATA

	SFRWQCB	HLA	HLA	HLA	ACC	ACC	ACC	ACC	ACC	GOLDER	GOLDER	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	SUMMIT	RUSSELL	RUSSELL	RUSSELL
		T-2-2.5	T-2-9	T-5-4.5	B1S1	B2S1	B4S1	B5S1	B6S1	GA3-5	GA4-5	B1-4	B2-4	B3-4	B4-4	B5-4	B6-4	B7-4	B8-4	B9-4	B10-4	V1D1.5	V2D1.5	V3D1.5
	ESL	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		2.5 ft	9 ft	4.5 ft	3 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	1.5	1.5	1.5
		11/19/1990	11/19/1990	11/19/1990	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	3/29/1994	3/29/1994	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	6/10/2005	4/13/2005	4/13/2005	4/13/2005
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TARGET ANALYTE																								
VOCs	**TABLE E-1B**																							
NAPHTHALENE	0.46	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PNAs	**TABLE G-1**																							
ACENAPHTHENE	16	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ANTHRACENE	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)ANTHRACENE	12	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CHRYSENE	19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	60	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORENE	8.9	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	11	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PYRENE	85	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CAM 17 Metals	**TABLE K-1**																							
ANTIMONY	6.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5
ARSENIC	5.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.8	6.9	3.7
BARIUM	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	110	69	110
BERYLLIUM	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5
CADMIUM	1.7	NT	NT	NT	NT	NT	NT	NT	NT	<1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.31	<0.25	<0.25
CHROMIUM (TOTAL)	23000	NT	NT	NT	NT	NT	NT	NT	NT	6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	36	32	46
COBALT	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	9.8	6.7	14
COPPER	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	55	16	45
LEAD	150	NT	NT	NT	NT	NT	NT	NT	NT	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	16	6.8	13
MERCURY	3.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.31	0.06	0.22
MOLYBDENUM	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.66	0.52	0.91
NICKEL	310	NT	NT	NT	NT	NT	NT	NT	NT	3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	25	18	44
SELENIUM	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5
SILVER	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.52	<0.5	<0.5
THALLIUM	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5
VANADIUM	110	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	61	56	90
ZINC	4600	NT	NT	NT	NT	NT	NT	NT	NT	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	55	41	65
PETROLEUM HYDROCARBONS	**TABLE K-1**																							
TPH-RESIDUAL FUELS	1000	<500	<500	<500	550	<1.0	<1.0	18	14	1800	<100	NT	NT	NT	NT	<10	NT	NT	NT	1480	NT	NT	NT	NT
TPH-MIDDLE DISTILLATES	400	610	600	1500	170	<1.0	<1.0	<1.0	4.2	<10	<10	<10	<10	<10	<10	886	<10	<10	<10	<10	<10	NT	NT	NT
TPH-GASOLINE	400	<150	<150	<150	720	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	NT	NT	NT	NT	<10	NT	NT	NT	<10	NT	NT	NT	NT
METHYL TERT BUTYL ETHER	30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZENE	0.18	NT	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOLUENE	100	NT	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ETHYLBENZENE	400	NT	NT	NT	NT	NT	NT	NT	NT	<0.05	<0.004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
XYLENE(S)	330	NT	NT	NT	NT	NT	NT	NT	NT	<0.2	<0.004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

NT -- NOT TESTED

TABLE I. SURFACE SOIL DATA

	SFRWQCB	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	GOLDER
		V7D1.5	V8D1.5	V9D1.5	V6D1.5	S1D1.0	S3D1.0	S2D1.0	V7D1.5	V5D3.0	SP-1	V5NWD3.0	V5ND3.0	V5NND3.5	V5NED4.5	V5SWD3.5	V5SD4.0	V5SSD4.5	V5SSD1.5	SD1D4.0	V7D3.5	V5ED4.0	V5SED2.0	V5SESD2.5	V5SESSD2.5	S@4'
	ESL	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		1.5	1.5	1.5	1.5	1	1	1	1.5	3		3	3	3.5	4.5	3.5	4	4.5	1.5	4	3.5	4	2	2.5	2.5	4 ft
		4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	9/13/2005
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TARGET ANALYTE																										
VOCs	**TABLE E-1B**																									
NAPHTHALENE	0.46	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PNAs	**TABLE G-1**																									
ACENAPHTHENE	16	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ANTHRACENE	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)ANTHRACENE	12	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CHRYSENE	19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	60	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORENE	8.9	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	11	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PYRENE	85	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CAM 17 Metals	**TABLE K-1**																									
ANTIMONY	6.1	<0.5	<0.5	0.52	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ARSENIC	5.5	4.6	0.81	6.6	2.5	3.4	7.7	4.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BARIUM	1000	52	34	170	45	85	140	160	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BERYLLIUM	29	<0.5	<0.5	0.55	<0.5	0.68	0.52	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CADMIUM	1.7	<0.25	<0.25	0.27	<0.25	<0.25	0.41	<0.25	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CHROMIUM (TOTAL)	23000	15	13	35	40	19	44	35	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
COBALT	10	5.4	3.9	5.1	23	3.5	8.9	13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
COPPER	610	8.1	11	12	51	8.1	16	23	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
LEAD	150	5.4	2.9	13	5.1	4.4	11	10	NT	NT	6.2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MERCURY	3.7	<0.05	<0.05	<0.05	1.2	<0.05	0.06	0.14	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MOLYBDENUM	76	0.51	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
NICKEL	310	8.1	6	14	25	7.6	21	27	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SELENIUM	76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
SILVER	76	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
THALLIUM	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
VANADIUM	110	56	77	49	130	48	61	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ZINC	4600	37	36	56	48	36	54	52	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBONS	**TABLE K-1**																									
TPH-RESIDUAL FUELS	1000	<5.0	NT	NT	NT	NT	NT	NT	NT	<5.0	NT	NT	27.1	<5.0	<5.0	<5.0	560	<5.0	980	30	<5.0	25.9	1250	2720	12	NT
TPH-MIDDLE DISTILLATES	400	<1.0	NT	NT	NT	NT	NT	NT	NT	<1.0	25	NT	14	<1.0	<1.0	<1.0	410	<1.0	710	2.4	<1.0	16	830	2000	26	42
TPH-GASOLINE	400	<1.0	NT	NT	NT	NT	NT	NT	NT	<1.0	NT	<1.0	6.3	<1.0	<1.0	<1.0	430	<1.0	682.4	<1.0	<1.0	8.9	761	1380	21	NT
METHYL TERT BUTYL ETHER	30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZENE	0.18	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOLUENE	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ETHYLBENZENE	400	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
XYLENE(S)	330	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

NT -- NOT TESTED

TABLE I. SURFACE SOIL DATA

	SFRWQCB	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO
		SE@4'	NW@8'	N@8'	NE@8'	SW@8'	C@8'	E-1-5a	E-2-5a	E-5-5a	E-10-5a	E-11-1	E-11-4	E-12-1	E-12-4	E-13-1	E-13-4	E-14-1	E-14-4	E-15-1	E-15-4	E-16-2.5	E-16-5.5	E-17-1	E-17-4
	ESL	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		4 ft	8 ft	8 ft	8 ft	8 ft	8 ft	5 ft	5 ft	5 ft	5 ft	1 ft	4 ft	1 ft	4 ft	1 ft	4 ft	1 ft	4 ft	1 ft	4 ft	2.5 ft	5.5 ft	1 ft	4 ft
		9/13/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/21/2005	11/23/2005	11/22/2005	11/22/2005	11/23/2005	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006	2/15/2006
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TARGET ANALYTE																									
VOCs	**TABLE E-1B**																								
NAPHTHALENE	0.46	NT	NT	NT	NT	NT	NT	<0.005	<0.005	0.036	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PNAs	**TABLE G-1**																								
ACENAPHTHENE	16	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.11	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ANTHRACENE	2.8	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.19	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)ANTHRACENE	12	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.3	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CHRYSENE	19	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.35	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	60	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.78	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORENE	8.9	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.014	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	11	NT	NT	NT	NT	NT	NT	<0.050	<0.050	1.1	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PYRENE	85	NT	NT	NT	NT	NT	NT	<0.050	<0.050	0.99	<0.005	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CAM 17 Metals	**TABLE K-1**																								
ANTIMONY	6.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
ARSENIC	5.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.8	4.2	5.4	5.1	5.1	4.9	4.9	8.5	4.9	11	2.9	5.2	6.8	4.4
BARIUM	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	150	270	150	150	220	180	140	120	110	110	71	120	150	110
BERYLLIUM	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.53	<0.5	<0.5	0.52	0.53	0.52	0.5	0.52	<0.5	0.56	<0.5	<0.5	0.52	<0.5
CADMIUM	1.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.25	<0.25	<0.25	<0.25	0.34	<0.25	0.26	<0.25	<0.25	0.46	<0.25	<0.25	<0.25	<0.25
CHROMIUM (TOTAL)	23000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	46	58	35	44	46	34	45	29	29	17	29	33	34	33
COBALT	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	14	20	8.9	11	11	9.9	12	9.3	8.7	32	6.8	9.5	9	11
COPPER	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	35	63	16	21	20	21	22	23	17	13	17	18	17	17
LEAD	150	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	11	8	11	5.7	12	16	9.1	25	6.2	6.9	3.2	8.1	9.2	6.3
MERCURY	3.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.16	0.23	<0.05	0.08	0.063	0.16	0.13	0.098	0.089	<0.05	<0.05	0.062	0.071	<0.05
MOLYBDENUM	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	0.66	0.66	<0.5	0.58	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5
NICKEL	310	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	54	73	31	44	48	33	40	26	24	41	61	28	33	30
SELENIUM	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SILVER	76	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
THALLIUM	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.57	<0.5	<0.5	<0.5	<0.5
VANADIUM	110	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	87	85	46	67	48	63	68	64	61	56	23	56	49	67
ZINC	4600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	58	59	43	44	47	40	47	65	42	48	39	48	50	50
PETROLEUM HYDROCARBONS	**TABLE K-1**																								
TPH-RESIDUAL FUELS	1000	NT	NT	NT	NT	NT	NT	<5.0	<5.0	800	<5.0	56	<5.0	<5.0	<5.0	16	49	<5.0	64	33	<5.0	<5.0	27	7.3	8.8
TPH-MIDDLE DISTILLATES	400	49.5	<10	108	113	<10	<10	<1.0	<1.0	170	<1.0	7.2	<1.0	<1.0	<1.0	1.4	6.3	<1.0	11	2.6	<1.0	<1.0	3.5	1.5	2
TPH-GASOLINE	400	NT	NT	NT	NT	NT	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
METHYL TERT BUTYL ETHER	30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BENZENE	0.18	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
TOLUENE	100	NT	NT	NT	NT	NT	NT	0.031	0.021	0.034	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
ETHYLBENZENE	400	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
XYLENE(S)	330	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NT -- NOT TESTED

TABLE II. SUBSURFACE SOIL DATA

	SFRWQCB	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	ACC	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GOLDER	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX
		B1S2	B1S3	B1S4	B2S2	B2S3	B4S2	B5S2	B5S3	B6S2	B6S3	B6S4	B7S2	B7S3	B7S4	GA1-10	GA1-15	GA2-10	GA2-15	GA3-10	GA4-10	GC-2-10	GC-2-20	GC-2-30	GC-3-10	GC-3-25	GC-3-40	GC-4-10
		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	ESL	10 ft	15 ft	20 ft	10 ft	15 ft	10 ft	10 ft	15 ft	10 ft	15 ft	20 ft	10 ft	15 ft	20 ft	10 ft	15 ft	10 ft	15 ft	10 ft	10 ft	10 ft	20 ft	30 ft	10 ft	25 ft	40 ft	10 ft
		6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	6/7/1993	3/29/1994	3/29/1994	3/29/1994	3/29/1994	3/29/1994	3/29/1994	9/24/1994	9/24/1994	9/24/1994	9/24/1994	9/24/1994	9/24/1994	9/24/1994
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TARGET ANALYTE																												
PNAs	**TABLE G-1**																											
ACENAPHTHYLENE	13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<7	<0.7	<0.07	0.25	<0.07	<0.07	<0.07
BENZO(A)ANTHRACENE	12	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	<0.01	<0.001	<0.001	<0.001	0.012	<0.001
BENZO(A)PYRENE	130	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.13	0.014	<0.001	<0.001	<0.001	0.006	<0.001
BENZO(B)FLUORANTHENE	46	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.26	<0.01	<0.001	0.006	<0.001	0.017	0.001
BENZO(K)FLUORANTHENE	2.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.1	<0.01	<0.001	<0.001	<0.001	0.001	<0.001
CRYSENE	19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<2	<0.2	<0.02	<0.02	<0.02	0.042	<0.02
DIBENZO[A,H]ANTHRACENE	9.9	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.2	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002
FLUORANTHENE	60	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	11	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PYRENE	85	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBONS	**TABLE K-1**																											
TPH-RESIDUAL FUELS	1000	490	<1.0	<1.0	<1.0	<1.0	150	140	2800	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<100	<100	<100	<100	<100	<100	41000	4400	<10	80	<10	1400	<10
TPH-MIDDLE DISTILLATES	400	170	<1.0	<1.0	<1.0	<1.0	62	21	760	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	NT	NT	NT	NT	NT	NT	NT
TPH-GASOLINE	400	540	<1.0	<1.0	<1.0	<1.0	410	<1.0	2900	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	NT	NT	NT	NT	NT	NT
NAPHTHALENE	1.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZENE	0.18	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.5	<0.005	<0.005	<0.001	<0.001	<0.005	<0.001
TOLUENE	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.5	0.03	0.01	<0.001	<0.001	<0.005	<0.001
ETHYLBENZENE	400	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.5	<0.005	<0.005	<0.002	<0.002	<0.005	<0.002
XYLENE(S)	330	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.5	0.03	<0.005	<0.002	<0.002	<0.005	<0.002

NT -- NOT TESTED

TABLE II. SUBSURFACE SOIL DATA

	SFRWQCB	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX	GEOMATRIX	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO
		GC-4-25	GC-4-30	W-1-15	W-1-35	W-1-45	E-1-10a	E-1-15a	E-1-20a	E-2-10a	E-2-15a	E-5-10a	E-5-15a	E-5-30a	E-10-10a	E-10-15a
		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	ESL	25 ft	30 ft	15 ft	35 ft	45 ft	10 ft	15 ft	20 ft	10 ft	15 ft	10 ft	15 ft	30 ft	10 ft	15 ft
		9/24/1994	9/24/1994	9/24/1994	9/24/1994	9/24/1994	11/23/2005	11/23/2005	11/23/2005	11/23/2005	11/22/2005	11/22/2005	11/22/2005	11/22/2005	11/23/2005	11/22/2005
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TARGET ANALYTE																
PNAs	**TABLE G-1**															
ACENAPHTHYLENE	13	<0.07	<0.07	<0.07	<0.7	<0.07	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)ANTHRACENE	12	<0.001	<0.001	<0.001	0.053	<0.001	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(A)PYRENE	130	<0.001	<0.001	<0.001	0.031	<0.001	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(B)FLUORANTHENE	46	0.001	<0.001	<0.001	<0.01	<0.001	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
BENZO(K)FLUORANTHENE	2.7	<0.001	<0.001	<0.001	<0.01	<0.001	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CRYSENE	19	0.02	<0.02	<0.02	0.26	<0.02	<0.050	<0.050	<0.050	<0.050	<0.050	0.06	<0.005	<0.005	<0.005	<0.005
DIBENZO[A,H]ANTHRACENE	9.9	<0.002	<0.002	<0.002	<0.02	<0.002	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	60	NT	NT	NT	NT	NT	<0.050	<0.050	<0.050	<0.050	<0.050	0.073	<0.005	<0.005	<0.005	<0.005
PHENANTHRENE	11	NT	NT	NT	NT	NT	<0.050	<0.050	<0.050	<0.050	<0.050	0.098	<0.005	<0.005	<0.005	<0.005
PYRENE	85	NT	NT	NT	NT	NT	<0.050	<0.050	<0.050	<0.050	<0.050	0.093	<0.005	<0.005	<0.005	<0.005
PETROLEUM HYDROCARBONS	**TABLE K-1**															
TPH-RESIDUAL FUELS	1000	380	<10	<10	7700	30	<5.0	<5.0	<5.0	<5.0	<5.0	160	23	<5.0	<5.0	<5.0
TPH-MIDDLE DISTILLATES	400	NT	NT	NT	NT	NT	<1.0	<1.0	<1.0	<1.0	<1.0	30	1.8	<1.0	<1.0	<1.0
TPH-GASOLINE	400	NT	NT	NT	NT	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NAPHTHALENE	1.5	NT	NT	NT	NT	NT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BENZENE	0.18	<0.001	<0.001	<0.005	<0.5	<0.001	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TOLUENE	100	<0.001	0.002	<0.005	<0.5	0.004	0.11	0.062	0.061	0.02	0.0087	0.036	0.011	0.014	<0.005	<0.005
ETHYLBENZENE	400	<0.002	<0.002	<0.005	<0.5	<0.002	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
XYLENE(S)	330	0.002	<0.002	<0.005	<0.5	0.003	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

NT -- NOT TESTED

TABLE III. GROUNDWATER DATA

	SFRWQCB	ACC	GEOMATRIX	GEOMATRIX	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO
		B1	W-1	W-1	V5D3.5	V7	V-5E	V-5S	V-5SS	V-5SE	W-1	V-5NW	E-1-GW	E-3-GW	E-4-GW	E-5-GW	E-6-GW	E-7-GW	E-8-GW	E-9-GW	E-10-GW	W-1-2	GW-13	GW-17
	ESL	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
		6/7/1993	9/27/1994	10/13/1994	4/28/2005	4/28/2005	4/28/2005	4/28/2005	4/28/2005	4/28/2005	4/28/2005	4/28/2005	11/23/2005	11/23/2005	11/23/2005	12/8/2005	12/8/2005	11/22/2005	11/23/2005	12/8/2005	11/23/2005	12/9/2005	2/16/2005	2/16/2005
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
TARGET ANALYTE																								
VOCs	**TABLE E-1A**																							
ACETONE	53000000	NT	NT	NT	<5.0	26	<5.0	90	100	<5.0	<5.0	NT	<5.0	<5.0	7.4	<5.0	<5.0	14	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NAPHTHALENE	3200	NT	NT	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
DIISOPROPYL ETHER (DIPE)	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	14	<0.5	0.8	<0.5	<0.5	<0.5	<0.5
TETRACHLOROETHYLENE	120	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.69
PNAs	**TABLE F-1A**																							
BENZO(B)FLUORANTHENE	0.029	NT	NT	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORANTHENE	8.0	NT	NT	0.03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
FLUORENE	3.9	NT	NT	2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PHENANTHRENE	4.6	NT	NT	1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
CAM 17 Metals	**MCL**																							
ANTIMONY	6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.7	NT	NT	NT	NT	NT	NT	NT
ARSENIC	10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	7	NT	NT	NT	NT	NT	NT	NT
BARIUM	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	62	NT	NT	NT	NT	NT	NT	NT
BERYLLIUM	4	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
CADMIUM	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
CHROMIUM (TOTAL)	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
COBALT	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.9	NT	NT	NT	NT	NT	NT	NT
COPPER	1300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
LEAD	15	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
MERCURY	2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.097	NT	NT	NT	NT	NT	NT	NT
MOLYBDENUM	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	25	NT	NT	NT	NT	NT	NT	NT
NICKEL	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	5.6	NT	NT	NT	NT	NT	NT	NT
SELENIUM	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
SILVER	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
THALLIUM	2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
VANADIUM	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.4	NT	NT	NT	NT	NT	NT	NT
ZINC	5000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NT	NT	NT	NT	NT
PETROLEUM HYDROCARBONS	**TABLE E-1A**																							
TPH-RESIDUAL FUELS	--	<50	1400	NT	17000	1100	21800	13700	4100	8600	980	3000	<250	<250	<250	<250	<250	250	<250	370	<250	<250	<250	<250
TPH-MIDDLE DISTILLATES	26000	<50	NT	NT	35000	230	15000	8200	870	1400	450	230	<50	<50	<50	<50	72	290	51	310	310	160	<50	<50
TPH-GASOLINES	45000	<50	NT	NT	32460	160	10700	4800	710	420	430	110	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
METHYL TERT BUTYL ETHER	24000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<5.0	<5.0
BENZENE	540	NT	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5
TOLUENE	380000	NT	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5
ETHYLBENZENE	170000	NT	<0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5
XYLENE(S)	160000	NT	<2	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.5	<0.5

NT -- NOT TESTED

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are enforceable standards set by the EPA.

TABLE IV. SOIL GAS DATA

	SFRWQCB	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO	ENGEO
		V-1	V-1 (Dup)	V-2	V-3	V-4	V-7	V-7 (Dup)	V-10	V-11	SG-3A	SG-5A	SG-6A	SG-7	SG-8	SG-9	SG-10	SG-10 (Dup.)
		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
	ESL	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft	5 ft
		4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	4/13/2005	2/8/2006	2/8/2006	2/8/2006	2/8/2006	2/8/2006	2/8/2006	2/8/2006	2/8/2006
	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
TARGET ANALYTE																		
VOCs	**TABLE E-2**																	
ACETONE	660000	39	39	37	15	24	30	NT	<7.8	<7.1	950	1600	100	42	310	84	240	260
BUTANONE, 2-	--	35	35	86	37	78	65	NT	<2.4	<2.2	10	16	8.6	5	19	17	28	31
CARBON DISULFIDE	--	5	5.1	<2.7	<2.7	9.3	4.3	NT	3	<2.3	3.6	3.8	6.8	<2.3	4.2	11	6.8	5.6
CHLOROFORM	450	<3.8	<3.8	<4.2	<3.0	<4.1	6.5	NT	<4.0	<3.6	<3.4	<3.5	4.1	<3.6	<3.5	<3.4	<3.9	<3.9
CYCLOHEXANE	--	3	3.1	<2.9	3.2	<2.9	5.4	NT	<2.8	<2.6	<2.4	4	2.5	4	<2.5	2.7	<2.8	<2.8
ETHANOL	19000000	39	41	<6.4	<6.6	<6.3	<5.7	NT	<6.2	<5.6	6.2	17	20	6	8.4	9.5	51	55
ETHYLTOLUENE	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	28	26	38	21	46	44	46	49
FREON 11	--	<4.4	<4.4	<4.8	9.6	5.4	5	NT	<4.6	<4.2	<3.9	<4.0	<3.7	<4.1	<4.0	<4.0	<4.5	<4.5
FREON 12	--	<3.8	<3.8	<4.2	87	300	<3.8	NT	<4.0	<3.7	<3.4	3.7	3.4	<3.6	4.2	<3.5	<4.0	3.9
HEPTANE	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	3	7.2	8	5.3	6.2	7.2	9.8	11
HEXANE	--	15	16	6.6	<3.1	4.3	6.5	NT	<2.9	<2.6	2.7	8.4	7.2	6.4	8.6	9.8	14	15
METHYL-2-PENTANONE, 4-	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	<2.8	<2.9	<2.7	<3.0	<2.9	<2.9	4.9	5.6
METHYLENE CHLORIDE	2400	NT	NT	NT	NT	NT	NT	NT	NT	NT	<2.4	3.6	<2.3	<2.5	<2.5	<2.4	4.1	<2.8
PROPALBENZENE	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.3	4.4	6.6	4.7	7.5	7.1	7.4	8.2
PROPANOL, 2-	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	6600	1800	1200	14	500	38	1400	1600
STYRENE	210000	NT	NT	NT	NT	NT	NT	NT	NT	NT	<3.0	<3.1	<2.8	<3.1	4	<3.0	<3.4	<3.4
TETRACHLOROETHYLENE	410	<5.2	<5.2	<5.8	87	26	27	NT	<5.6	2.2	10	22	<4.5	<5.0	30	<4.8	<5.5	<5.5
TETRAHYDROFURAN	--	12	12	61	25	57	57	NT	2.6	2.2	<2.0	2.2	3	<2.2	<2.1	2.6	<2.4	<2.4
TRICHLOROETHENE	1200	<4.2	<4.2	<4.6	<4.7	<4.5	<4.1	NT	<4.4	22	<3.7	<3.9	<3.5	<3.9	<3.9	<3.8	<4.3	<4.3
TRIMETHYLBENZENE, 1,2,4-	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	36	32	48	30	63	58	60	66
TRIMETHYLBENZENE, 1,3,5-	--	NT	NT	NT	NT	NT	NT	NT	NT	NT	7.8	7.6	11	11	14	13	15	17
TRIMETHYLPENTANE, 2,2,4-	--	<3.6	<3.6	<4.0	24	<3.9	<3.6	NT	<3.8	<3.5	<3.2	8.6	4.6	7.6	<3.4	<3.3	8.7	9.2
PETROLEUM HYDROCARBONS	**TABLE E-2**																	
TPH-GASOLINES	26000	600	NT	510	560	640	540	530	<170	150	NT	NT	NT	NT	NT	NT	NT	NT
BENZENE	85	<2.5	<2.5	<2.7	<2.8	10	5.9	NT	<2.6	<2.4	4.1	7.7	6.4	4.6	6.4	7.2	6.2	5.9
TOLUENE	63000	8.2	7.8	3.6	<3.3	34	3.2	NT	<3.1	<2.8	80	83	130	90	110	120	120	130
ETHYL BENZENE	420000	14	13	<3.7	<3.8	5.2	3.6	NT	<3.6	<3.2	15	18	25	16	31	26	25	28
XYLENE(S)	150000	74	74	13	<3.8	22	26.4	NT	<3.6	<3.2	123	138	191	90	272	191	204	213

NT -- NOT TESTED